Name Class

Teacher Date

Unit 2 – Ratios and Proportional Reasoning

Post Summative Assessment

**Section A - Post Test**

**6.RP.1**

=====================================================================

In a sports equipment locker, there are 56 baseballs and 8 baseball mitts. How is the ratio of baseballs to baseball mitts expressed in simplest form?

A 56:8

B 8:56

C 7:1

D 1:7

Ray took a survey about how people in his class got to school. 24 students walked and 8 students took the yellow bus. Which statement correctly explains the ratio of walking students to bus students and is expressed in simplest form?

A For every 24 students that walk, there are 8 students that take the bus.

B For every 8 students that take the bus, there are 24 students that walk.

C For every 3 students that walk, there is 1 student that takes the bus.

D For every 1 student that takes the bus, there are 3 students that walk.

Kevin is making cookies for his wife. He needs to use 6 cups of flour and 3 cups of sugar for the recipe. Which statement correctly explains the ratio of cups of flour to cups of sugar in simplest form?

A For every 2 cups of flour, there is 1 cup of sugar.

B For every 3 cups of sugar, there are 6 cups of flour.

C For every 1 cup of sugar, there are 3 cups of flour.

D For every 6 cups of flour, there are 3 cups of sugar.

**6.RP.2**

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Kathryn paid $72 for 9 hamburgers. How much did she spend for 1 hamburger?

A $648

B $63

C $81

D $8

Jack can ride his bike 42 miles in 6 hours. How many miles does he ride in 1 hour?

A 48 miles

B 7 miles

C 36 miles

D 15 miles

I’m having a party. The rate of tacos to people is 63 to 21. What would that be expressed as a unit rate of tacos to people?

A 63:21

B 21:63

C 3:1

D 1:3

**6.RP.3b**

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If it took 8 hours to mow 5 lawns, then at that rate, how many lawns could be mowed in 32 hours?

A 27

B 37

C 40

D 20

Jess can drive 432 km in 6 hours. At this rate, how far does she travel in one hour?

A 60 km

B 426 km

C 72 km

D 66 km

Maria bought 18 cans of soda for $15.30. How much did 1 can cost?

A $ 0.55

B $ 0.85

C $ 0.65

D $ 0.70

**6.RP.3a**

=====================================================================

There are 3 players per team. Use the table below to answer each of the following questions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Players | 3 | 6 | **A** | 15 |
| Team | 1 | 2 | 3 | **B** |

How many players will be in box “A” in the table above?

A 18

B 7

C 9

D 10

How many teams should there be for box “B”?

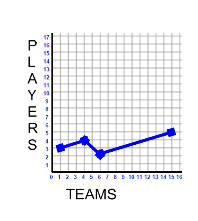
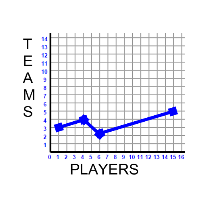
A 5

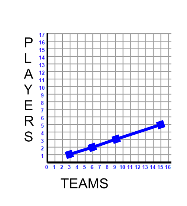
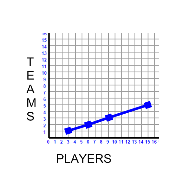
B 6

C 18

D 45

Which figure shows the data plotted correctly?

A B

C D

**6.RP.3c**

=====================================================================

What percent is 24 out of 50?

A 26%

B 24%

C 48%

D 74%

What is 30% of 60?

A 18

B 90

C 30

D 20

40% of the students in Ms. Byrne’s class like ice cream. That is 6 students.

How many students are in the class all together?

A 24

B 240

C 15

D 6.67

**6.RP.3d**

=====================================================================

There are 12 inches in 1 foot. How many inches are in 5 feet?

A 17

B 6

C 7

D 60

There are 4 quarts in a gallon. How many quarts are in 18 gallons?

A 14

B 72

C 12

D 4

There are 2 cups in a pint. There are 2 pints in a quart. How many cups are in 8 quarts?

A 32

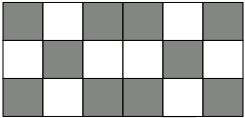
B 4

C 6

D 12

**Section B: Summative Assessment**

1. The new floor in the school cafeteria is going to be constructed of square tiles that are either gray or white and in the pattern that appears below:



Part A: **6.RP.1**

What is the ratio of gray tiles to white tiles?

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part B: **6.RP.1**

What is the ratio of white tiles to the total number of tiles in the pattern?

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part C: **6.RP.2**

If the total cost of the white tiles is $12, what is the unit cost per white tile?

Answer: $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **6.RP.2 and 6.RP.3**

A grocery store sign indicates that bananas are 6 for $1.50, and a sign by the oranges indicates that they are 5 for $3.00. Find the total cost of buying 2 bananas and 2 oranges.

***Explain the steps you took to answer this question.***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **6.RP.3d**

Jeremy has two 7-foot-long boards. He needs to cut pieces that are 15 inches long from the boards. What is the greatest number of 15-inch pieces he can cut from the two boards?

*12 in = 1 foot*

***Justify your answer.***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **6.RP.3c**

A clothing store offers a 30% discount on all items in the store.

**Part A:** If the original price of a sweater is $40, how much will it cost after the discount?

***Show your work***.

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part B:** A shopper bought three of the same shirt and paid $63 after the 30% discount. What was the original price of one of the shirts?

***Show your work.***

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part C:** Every store employee gets an additional 10% off the already discounted price. If an employee buys an item with an original price of $40, how much will the employee pay?

***Show your work.***

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **6.RP.3a**

A box of wheat crackers contains 6 servings and has a total of 420 calories.

**Part A:** Complete the chart based on the information given.

***Show your work.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| servings | 1 | 2 | 3 | 4 | 5 | 6 |
| calories |  |  |  |  |  | 420 |

**Part B:** Henry ate 30% of the box of wheat crackers. How many calories did he consume?

***Explain the steps you took to answer this question.***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_